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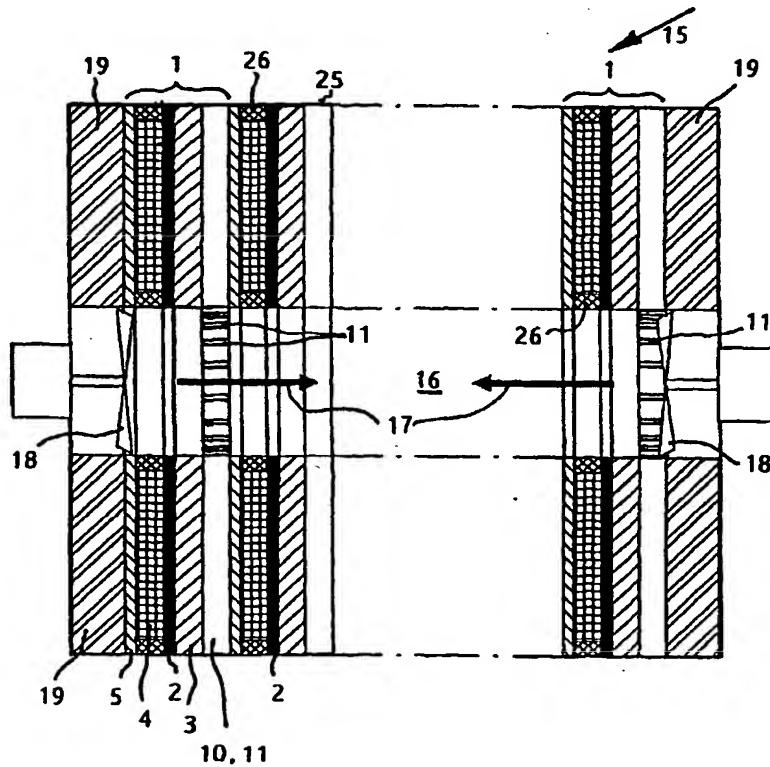
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Declarations under Rule 4.17:

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(54) Title: METHOD OF OPERATING A FUEL CELL SYSTEM, AND FUEL CELL SYSTEM OPERABLE ACCORDINGLY



(57) Abstract: For simplifying cooling of a fuel cell system which may be a single cell (1), a stack (15) or a similar configuration and which comprises at least one active membrane (2) sandwiched between an anode layer (4) and a cathode layer (3) and comprising a catalyst, a fuel supply having access to the anode layer and an air supply (17, 18) having access to the cathode layer, while at the same time keeping the effectivity of the system with reference to energy conversion, volume and weight favourable, the fuel cell system is to be operated such that the air which is supplied by the air supply, is introduced by pressure into the fuel cell system, passes along the cathode layer and then leaves the fuel cell system, is used for both oxidant and coolant. For this purpose, the air is introduced into the fuel cell system (1, 15) with a rate resulting in a stoichiometric rate in the range between 25 and 140.

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